

TECHNICAL & COMMERCIAL COMPARISON · 2026

mBio7

The innovative building system
by **Woodwise**

**BUILD BETTER,
FASTER,
FOR LESS.**

5×

CHEAPER
THAN
TRADITIONAL
MASONRY

5×

FASTER TO
ASSEMBLE

10×

LIGHTER THAN
CONCRETE

90%

RECYCLED
MATERIALS

COMPARATIVE ANALYSIS

MBIO7 VS TRADITIONAL MASONRY

COMPARISON CONDITIONS

Exterior walls of a
7 M × 8 M BUILDING (56 M² FLOOR AREA)
— same thermal resistance for both solutions:
R = 3.61 M².K/W

CRITERION	MBIO7	TRADITIONAL MASONRY	COMMENTS
Materials (excl. slab)	216 mBio7 panels + screws + EPS + render → 4 pallets only	720 blocks + 40 bags cement + 1.5 T sand + ext. insulation → 15 pallets + deliveries	Simple, cost-effective delivery with mBio7 — see full breakdown p. 4
Total wall weight	1,950 kg	19,000 kg	mBio7 is 10x lighter — reduced transport, lower CO² footprint
Skilled labour	✓ NOT required Self + 1 helper — 3 days	✗ YES mandatory Mason + worker — 12 days	Self-build friendly. Straightness guaranteed by panel system. Ready to use immediately — no curing.
Insulation type	Integrated fill 100% recycled EPS	External insulation required EPS 120 + render	No external thermal envelope with mBio7 — major cost saving and floor area gain
Foundations	✓ NOT required	✗ YES, reinforced	Reduced weight allows lightweight or no foundations at all
Assembly time	3 days	15 days	5x faster. No weather constraints during or after assembly
Wall cost (labour incl.)	€ 4,715.40	€ 22,843	Savings of € 18,128 — mBio7 is nearly 5x cheaper
Habitable area	53.62 m²	51.30 m²	Gain of +4.5% thanks to thinner walls
Seismic resistance	Crack-proof · Split-proof	Can split · Cracking possible	Key argument in seismic zones or on unstable ground
Ecology	90% recycled	0% recycled	Optimal carbon footprint — pallets cut from 15 to 4
Deconstruction	Dismantlable · Reusable · Movable	Costly demolition · Heavy rubble	Zero rubble — panels reusable in another build

(1) mBio7 can also be used for partition walls, floors and roofs — comparison limited to exterior structure only. (2) To reach $R \geq 5 \text{ m}^2.\text{K/W}$ (building regs), an interior EPS + plasterboard lining suffices in both cases. (3) mBio7 greatly reduces physical labour and requires no water on site.

BUILDING WITH MBIO7 PANELS

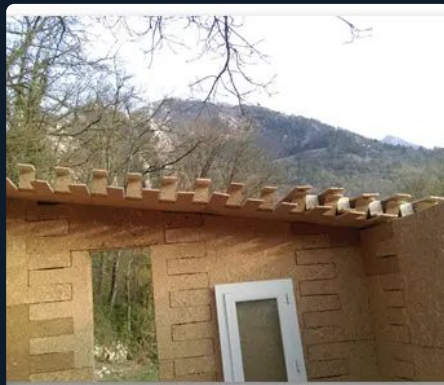
Individual house built with **160 mBio7 panels** ($\approx 1,450$ kg) — no reinforced foundations, no water, no qualified mason required.



STEP 1

Wall assembly

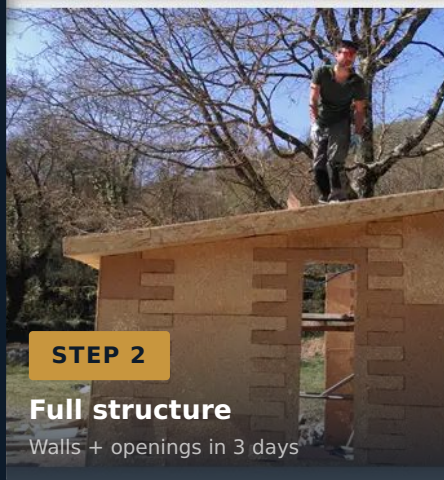
Interlocking and screwing of panels



STEP 2

Full structure

Walls + openings in 3 days



STEP 3

Interior finishing

Insulation fill + BA13 plasterboard



STEP 4

From pallet to bare house

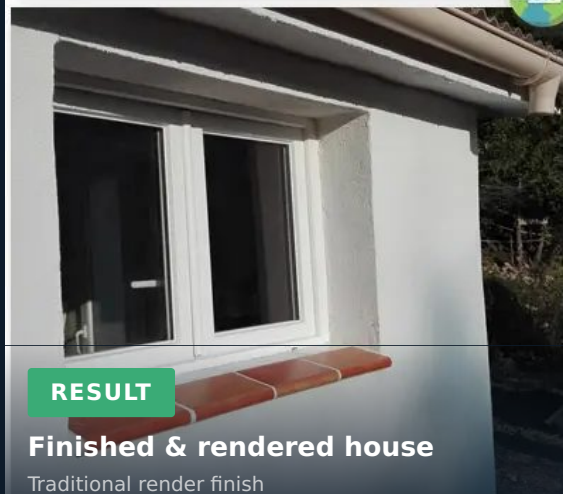
Panels stacked, structure up, render ready



RESULT

Finished & rendered house

Traditional render finish



DETAILED FINANCIAL ANALYSIS — 72 M² WALLS

COST BREAKDOWN

► MBIO7 SOLUTION					
PRODUCT	SPECIFICATIONS	REQUIRED	UNIT PRICE	QTY	TOTAL
mBio7 panels (90% recycled)	3 panels / m²	72 m²	€ 15.00	216	€ 3,240.00
Screws (box of 1,000)	14 screws / panel	3,024 screws	€ 12.00	4	€ 48.00
Recycled EPS beads (100% recycled)	400 litres	364 litres	€ 39.90	1	€ 39.90
Exterior render 25 kg	1 bag / m²	72 m²	€ 10.00	72	€ 720.00
Interior plasterboard BA13	2.50 m × 1.20 m	72 m²	€ 2.70	25	€ 67.50
Labour: ground prep + assembly	Self + 1 helper	Cost / day	€ 200.00	3 d.	€ 600.00
TOTAL mBio7 (incl. VAT)				€ 4,715.40	

► TRADITIONAL MASONRY					
PRODUCT	SPECIFICATIONS	REQUIRED	UNIT PRICE	QTY	TOTAL
Concrete blocks 20/20/50	10 / m²	72 m² wall	€ 1.20	720	€ 864.00
Cement 25 kg	40 bags	72 m² wall	€ 6.10	40	€ 244.00
Sand	Per tonne delivered	72 m² wall	€ 45.00	1.5 T	€ 67.50
Interior plasterboard BA13	2.50 m × 1.20 m	72 m²	€ 2.70	25	€ 67.50
External insulation + installation	EPS 120 + render	72 m² wall	€ 200.00	72	€ 14,400.00
Labour: groundwork + prep + construction	Mason + worker	Cost / day	€ 600.00	12 d.	€ 7,200.00
TOTAL TRADITIONAL MASONRY (incl. VAT)				€ 22,843.00	

SAVINGS ACHIEVED WITH MBIO7

On the full wall construction, labour included

— € 18,127.60

i.e. -79% of total cost — mBio7 nearly 5x cheaper

Prices are inclusive of VAT and indicative — may vary depending on suppliers and region. Example based on a 7 m × 8 m building (56 m² floor area), exterior walls only (72 m²).

KEY STRENGTHS

THE DECISIVE ADVANTAGES OF MBIO7

NO FOUNDATION REQUIRED

The system's light weight (1,950 kg vs 19,000 kg) eliminates the need for reinforced foundations, drastically reducing both cost and construction time. Can be placed directly on a slab or even without one.

READY TO USE IMMEDIATELY

No drying time, no cement curing. The structure is operational as soon as assembly is complete, regardless of weather conditions. No frost or rain constraints during or after assembly.

**HOLLOW, ADAPTABLE STRUCTURE**

Electrical conduits, plumbing, windows and extensions are all facilitated by the hollow wall structure. Easy to cut with a saw. Off-cuts are reusable. Modifications or extensions possible at any time.

**90% RECYCLED MATERIALS**

Optimal carbon footprint thanks to 100% recycled materials and greatly reduced transport: only 4 pallets vs 15 for traditional masonry. A genuinely eco-responsible construction approach.

**EARTHQUAKE-PROOF · CRACK-PROOF**

mBio7 panels cannot crack. A key argument for seismic zones, unstable ground or high-risk areas. Superior mechanical resistance compared to traditional concrete blocks.

ZERO WATER ON SITE

No water required to build with mBio7. Considerably reduces physical strain. Ideal for remote, hard-to-access or constrained construction sites.

+4.5% MORE LIVING SPACE

The reduced wall thickness generates 2.32 m² of extra habitable area on a 56 m² building — 53.62 m² vs 51.30 m² with traditional masonry.

DISMANTLABLE & REUSABLE

Clean dismantling with no bulky rubble. Panels can be reused in another construction. Near-zero deconstruction cost — versus expensive demolition with traditional masonry.

MBIO7 ALSO DRAMATICALLY REDUCES PHYSICAL LABOUR

No water needed · Very limited equipment · No heavy machinery · Wall straightness guaranteed by panel interlocking — no specialist skills required

SUMMARY FIGURES

KEY FIGURES

5×

CHEAPER THAN TRADITIONAL
(WALLS, LABOUR INCL.)

5×

FASTER TO ASSEMBLE
(3 DAYS VS 15 DAYS)

10×

LIGHTER THAN CONCRETE
(1,950 KG VS 19,000 KG)

90%

RECYCLED MATERIALS
OPTIMAL CO² FOOTPRINT

+4.5%

MORE LIVING SPACE
(53.62 M² VS 51.30 M²)

€ 18,128

SAVINGS ON WALLS
(LABOUR INCLUDED)

TECHNICAL DATA

MBIO7 PANEL SPECIFICATIONS

SPECIFICATION	MBIO7 VALUE	NOTES
Unit weight	9 kg / panel	Manual handling without machinery — 216 panels for 72 m ²
Coverage	3 panels / m ²	Screws: 14 per panel — 4 boxes of 1,000 for 72 m ²
Thermal resistance	R = 3.61 m ² .K/W	Upgradeable with interior lining for building regulations (R ≥ 5 m ² .K/W)
Insulation fill	Any insulating material	100% recycled EPS beads in this example (400 l / panel)
Recycled content	90%	Second-life materials — optimised carbon footprint
Mechanical resistance	Cannot split	Crack-proof — compatible with seismic zones
Applications	Walls, partitions, floors, roofs	Complete construction system, not limited to walls
Water required	None	Fully dry assembly — considerably reduced physical labour